

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/909,2070
Source: 1FW16
Date Processed by STIC: 9/21/05

ENTERED



IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,207D

DATE: 09/21/2005

TIME: 11:13:43

Input Set : A:\GC450-D1-US-SEQLIST.TXT
 Output Set: N:\CRF4\09212005\I909207D.raw

4 <110> APPLICANT: De Buyl, Eric
 5 Lahaye, Andree
 6 Ledoux, Pierre
 7 Detroz, Rene
 9 <120> TITLE OF INVENTION: Xylanase, Microorganisms Producing it,
 10 DNA Molecules, Methods for Preparing this Xylanase and Uses
 11 of the Latter
 13 <130> FILE REFERENCE: GC450-D1-US
 15 <140> CURRENT APPLICATION NUMBER: US 09/909,207D
 16 <141> CURRENT FILING DATE: 2001-07-19
 18 <150> PRIOR APPLICATION NUMBER: US 08/470,953
 19 <151> PRIOR FILING DATE: 1995-06-06
 21 <150> PRIOR APPLICATION NUMBER: BE 09500448
 22 <151> PRIOR FILING DATE: 1995-05-17
 24 <150> PRIOR APPLICATION NUMBER: BE 09400706
 25 <151> PRIOR FILING DATE: 1994-07-26
 27 <160> NUMBER OF SEQ ID NOS: 29
 29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 31 <210> SEQ ID NO: 1
 32 <211> LENGTH: 663
 33 <212> TYPE: DNA
 34 <213> ORGANISM: Bacillus sp.
 36 <400> SEQUENCE: 1
 37 caaatcgtca ccgacaattc cattggcaac cacgatggct atgattatga attttggaaa 60
 38 gatacggtg gctctggac aatgattctc aatcatggcg gtacgttcag tgcccaatgg 120
 39 aacaatgtta acaacatatt atccgtaaa ggtaaaaaat tcaatgaaac acaaacacac 180
 40 caacaagttg gtaacatgtc cataaactac ggagccaact tccaacccaa tggtaatgcg 240
 41 tatttatgctg tctatgttg gactgttgc acctctgtcg aatattatat tgtcgacagt 300
 42 tggggcaact ggcgtccacc aggagcaacg cctaaggggc ccatcactgt tcatggagga 360
 43 acatatgata tctacgagac tcttagatgc aatcaaccct ccattaaggg gattgccaca 420
 44 tttaaacaat attggagtgt tcaagatcg aaacgcacga gtggcacat ttctgtcagc 480
 45 aaccacttta gagcgtggaa aacttaggg atgaatatgg gaaaaatgta tgaagtcg 540
 46 cttaactgttag aaggctatca aagtagcgaa agtgctaatt tatatacgaa tacactaaga 600
 47 attaacggta accctctctc aactattatg aatgacgaga gcataacttt ggataaaaac 660
 48 aat 663
 50 <210> SEQ ID NO: 2
 51 <211> LENGTH: 663
 52 <212> TYPE: DNA
 53 <213> ORGANISM: Bacillus sp.
 55 <220> FEATURE:
 56 <221> NAME/KEY: CDS
 57 <222> LOCATION: (1)...(663)
 59 <221> NAME/KEY: mat_peptide

R. b

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60 <222> LOCATION: (1)...(663)

W--> 62 <400> 2

63	caa atc gtc acc gac aat tcc att ggc aac cac gat ggc tat gat tat	48
64	Gln Ile Val Thr Asp Asn Ser Ile Gly Asn His Asp Gly Tyr Asp Tyr	
65	1 5 10 15	
67	gaa ttt tgg aaa gat agc ggt ggc tct ggg aca atg att ctc aat cat	96
68	Glu Phe Trp Lys Asp Ser Gly Gly Ser Gly Thr Met Ile Leu Asn His	
69	20 25 30	
71	ggc ggt acg ttc agt gcc caa tgg aac aat gtt aac aac ata tta ttc	144
72	Gly Gly Thr Phe Ser Ala Gln Trp Asn Asn Val Asn Asn Ile Leu Phe	
73	35 40 45	
75	cgt aaa ggt aaa aaa ttc aat gaa aca aca aca cac caa gtt ggt	192
76	Arg Lys Gly Lys Lys Phe Asn Glu Thr Gln Thr His Gln Gln Val Gly	
77	50 55 60	
79	aac atg tcc ata aac tac gga gcc aac ttc caa cca aat ggt aat gcg	240
80	Asn Met Ser Ile Asn Tyr Gly Ala Asn Phe Gln Pro Asn Gly Asn Ala	
81	65 70 75 80	
83	tat tta tgc gtc tat ggt tgg act gtt gac cct ctt gtc gaa tat tat	288
84	Tyr Leu Cys Val Tyr Gly Trp Thr Val Asp Pro Leu Val Glu Tyr Tyr	
85	85 90 95	
87	att gtc gac agt tgg ggc aac tgg cgt cca cca gga gca acg cct aag	336
88	Ile Val Asp Ser Trp Gly Asn Trp Arg Pro Pro Gly Ala Thr Pro Lys	
89	100 105 110	
91	ggg acc atc act gtt gat gga gga aca tat gat atc tac gag act ctt	384
92	Gly Thr Ile Thr Val Asp Gly Gly Thr Tyr Asp Ile Tyr Glu Thr Leu	
93	115 120 125	
95	aga gtc aat caa ccc tcc att aag ggg att gcc aca ttt aaa caa tat	432
96	Arg Val Asn Gln Pro Ser Ile Lys Gly Ile Ala Thr Phe Lys Gln Tyr	
97	130 135 140	
99	tgg agt gtt cga aga tcg aaa cgc acg agt ggc acg att tct gtc agc	480
100	Trp Ser Val Arg Arg Ser Lys Arg Thr Ser Gly Thr Ile Ser Val Ser	
101	145 150 155 160	
103	aac cac ttt aga gcg tgg gaa aac tta ggg atg aat atg ggg aaa atg	528
104	Asn His Phe Arg Ala Trp Glu Asn Leu Gly Met Asn Met Gly Lys Met	
105	165 170 175	
107	tat gaa gtc gcg ctt act gta gaa ggc tat caa agt agc gga agt gct	576
108	Tyr Glu Val Ala Leu Thr Val Glu Gly Tyr Gln Ser Ser Gly Ser Ala	
109	180 185 190	
111	aat gta tat agc aat aca cta aga att aac ggt aac cct ctc tca act	624
112	Asn Val Tyr Ser Asn Thr Leu Arg Ile Asn Gly Asn Pro Leu Ser Thr	
113	195 200 205	
115	att agt aat gac gag agc ata act ttg gat aaa aac aat	663
116	Ile Ser Asn Asp Glu Ser Ile Thr Leu Asp Lys Asn Asn	
117	210 215 220	
120	<210> SEQ ID NO: 3	
121	<211> LENGTH: 221	
122	<212> TYPE: PRT	
123	<213> ORGANISM: Bacillus sp.	
125	<400> SEQUENCE: 3	

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```

126 Gln Ile Val Thr Asp Asn Ser Ile Gly Asn His Asp Gly Tyr Asp Tyr
127 1 5 10 15
128 Glu Phe Trp Lys Asp Ser Gly Gly Ser Gly Thr Met Ile Leu Asn His
129 20 25 30
130 Gly Gly Thr Phe Ser Ala Gln Trp Asn Asn Val Asn Asn Ile Leu Phe
131 35 40 45
132 Arg Lys Gly Lys Lys Phe Asn Glu Thr Gln Thr His Gln Gln Val Gly
133 50 55 60
134 Asn Met Ser Ile Asn Tyr Gly Ala Asn Phe Gln Pro Asn Gly Asn Ala
135 65 70 75 80
136 Tyr Leu Cys Val Tyr Gly Trp Thr Val Asp Pro Leu Val Glu Tyr Tyr
137 85 90 95
138 Ile Val Asp Ser Trp Gly Asn Trp Arg Pro Pro Gly Ala Thr Pro Lys
139 100 105 110
140 Gly Thr Ile Thr Val Asp Gly Gly Thr Tyr Asp Ile Tyr Glu Thr Leu
141 115 120 125
142 Arg Val Asn Gln Pro Ser Ile Lys Gly Ile Ala Thr Phe Lys Gln Tyr
143 130 135 140
144 Trp Ser Val Arg Arg Ser Lys Arg Thr Ser Gly Thr Ile Ser Val Ser
145 145 150 155 160
146 Asn His Phe Arg Ala Trp Glu Asn Leu Gly Met Asn Met Gly Lys Met
147 165 170 175
148 Tyr Glu Val Ala Leu Thr Val Glu Gly Tyr Gln Ser Ser Gly Ser Ala
149 180 185 190
150 Asn Val Tyr Ser Asn Thr Leu Arg Ile Asn Gly Asn Pro Leu Ser Thr
151 195 200 205
152 Ile Ser Asn Asp Glu Ser Ile Thr Leu Asp Lys Asn Asn
153 210 215 220
155 <210> SEQ ID NO: 4
156 <211> LENGTH: 744
157 <212> TYPE: DNA
158 <213> ORGANISM: Bacillus sp.
160 <400> SEQUENCE: 4
161 atgagacaaa agaaattgac gttgattta gccttttag tttgtttgc actaaccta 60
162 cctgcagaaa taattcaggc acaaatcgcc accgacaatt ccattggca ccacgatggc 120
163 tatgattatg aatttggaa agatagcggt ggctctggga caatgattct caatcatggc 180
164 gtagcgatca gtgccaatg gaacaatgtt aacaacatat tattccgtaa aggtaaaaaa 240
165 ttcaatgaaa cacaacaca ccaacaagg ggtaacatgt ccataaacta cgagccaac 300
166 ttccaaccaa atggtaatgc gtatttatgc gtctatgggt ggactgttgc ccctcttgc 360
167 gaatattata ttgtcgacag ttggggcaac tggcgccac caggagcaac gcctaagggg 420
168 accatcactg ttgatggagg aacatatgtat atctacgaga ctcttagagt caatcaaccc 480
169 tcattaaagg ggattgccac attaaaccaa tattggagtg ttcgaagatc gaaacgcacg 540
170 agtggcacga ttctgtcag caaccactt agagcgtggg aaaacttagg gatgaatatg 600
171 gggaaaaatgt atgaagtgc gcttactgta gaaggtatc aaagtgcgg aagtgcataat 660
172 gatatatagca atacactaag attaacgtt aaccctctt caactattag taatgacgag 720
173 agcataactt tggataaaaaa caat 744
175 <210> SEQ ID NO: 5
176 <211> LENGTH: 744
177 <212> TYPE: DNA

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,207D

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 Output Set: N:\CRF4\09212005\I909207D.raw

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178 <213> ORGANISM: Bacillus sp.
180 <220> FEATURE:
181 <221> NAME/KEY: CDS
182 <222> LOCATION: (1)...(744)
184 <221> NAME/KEY: mat_peptide
185 <222> LOCATION: (1)...(744)
W--> 187 <221> sig_peptide
188 <222> LOCATION: (82)...(744)
W--> 190 <400> 5
  191 atg aga caa aag aaa ttg acg ttg att tta gcc ttt tta gtt tgt ttt      48
  192 Met Arg Gln Lys Lys Leu Thr Leu Ile Leu Ala Phe Leu Val Cys Phe
  193   1           5           10          15
  195 gca cta acc tta cct gca gaa ata att cag gca caa atc gtc acc gac      96
  196 Ala Leu Thr Leu Pro Ala Glu Ile Ile Gln Ala Gln Ile Val Thr Asp
  197   20          25          30
  199 aat tcc att ggc aac cac gat ggc tat gat tat gaa ttt tgg aaa gat      144
  200 Asn Ser Ile Gly Asn His Asp Gly Tyr Asp Tyr Glu Phe Trp Lys Asp
  201   35          40          45
  203 agc ggt ggc tct ggg aca atg att ctc aat cat ggc ggt acg ttc agt      192
  204 Ser Gly Gly Ser Gly Thr Met Ile Leu Asn His Gly Gly Thr Phe Ser
  205   50          55          60
  207 gcc caa tgg aac aat gtt aac aac ata tta ttc cgt aaa ggt aaa aaa      240
  208 Ala Gln Trp Asn Asn Val Asn Asn Ile Leu Phe Arg Lys Gly Lys Lys
  209   65          70          75          80
  211 ttc aat gaa aca caa aca cac caa caa gtt ggt aac atg tcc ata aac      288
  212 Phe Asn Glu Thr Gln Thr His Gln Gln Val Gly Asn Met Ser Ile Asn
  213   85          90          95
  215 tac gga gcc aac ttc caa cca aat ggt aat gcg tat tta tgc gtc tat      336
  216 Tyr Gly Ala Asn Phe Gln Pro Asn Gly Asn Ala Tyr Leu Cys Val Tyr
  217   100         105         110
  219 ggt tgg act gtt gac cct ctt gtc gaa tat tat att gtc gac agt tgg      384
  220 Gly Trp Thr Val Asp Pro Leu Val Glu Tyr Tyr Ile Val Asp Ser Trp
  221   115         120         125
  223 ggc aac tgg cgt cca cca gga gca acg cct aag ggg acc atc act gtt      432
  224 Gly Asn Trp Arg Pro Pro Gly Ala Thr Pro Lys Gly Thr Ile Thr Val
  225   130         135         140
  227 gat gga gga aca tat gat atc tac gag act ctt aga gtc aat caa ccc      480
  228 Asp Gly Gly Thr Tyr Asp Ile Tyr Glu Thr Leu Arg Val Asn Gln Pro
  229   145         150         155         160
  231 tcc att aag ggg att gcc aca ttt aaa caa tat tgg agt gtt cga aga      528
  232 Ser Ile Lys Gly Ile Ala Thr Phe Lys Gln Tyr Trp Ser Val Arg Arg
  233   165         170         175
  235 tcg aaa cgc acg agt ggc acg att tct gtc agc aac cac ttt aga gcg      576
  236 Ser Lys Arg Thr Ser Gly Thr Ile Ser Val Ser Asn His Phe Arg Ala
  237   180         185         190
  239 tgg gaa aac tta ggg atg aat atg ggg aaa atg tat gaa gtc gcg ctt      624
  240 Trp Glu Asn Leu Gly Met Asn Met Gly Lys Met Tyr Glu Val Ala Leu
  241   195         200         205
  243 act gta gaa ggc tat caa agt agc gga agt gct aat gta tat agc aat      672

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Input Set : A:\GC450-D1-US-SEQLIST.TXT
 Output Set: N:\CRF4\09212005\I909207D.raw

```

244 Thr Val Glu Gly Tyr Gln Ser Ser Gly Ser Ala Asn Val Tyr Ser Asn
245      210           215           220
247 aca cta aga att aac ggt aac cct ctc tca act att agt aat gac gag      720
248 Thr Leu Arg Ile Asn Gly Asn Pro Leu Ser Thr Ile Ser Asn Asp Glu
249 225           230           235           240
251 agc ata act ttg gat aaa aac aat
252 Ser Ile Thr Leu Asp Lys Asn Asn
253      245
256 <210> SEQ ID NO: 6
257 <211> LENGTH: 248
258 <212> TYPE: PRT
259 <213> ORGANISM: Bacillus sp.
261 <400> SEQUENCE: 6
262 Met Arg Gln Lys Lys Leu Thr Leu Ile Leu Ala Phe Leu Val Cys Phe
263 1           5           10           15
264 Ala Leu Thr Leu Pro Ala Glu Ile Ile Gln Ala Gln Ile Val Thr Asp
265 20          25          30
266 Asn Ser Ile Gly Asn His Asp Gly Tyr Asp Tyr Glu Phe Trp Lys Asp
267 35          40          45
268 Ser Gly Gly Ser Gly Thr Met Ile Leu Asn His Gly Gly Thr Phe Ser
269 50          55          60
270 Ala Gln Trp Asn Asn Val Asn Asn Ile Leu Phe Arg Lys Gly Lys Lys
271 65          70          75          80
272 Phe Asn Glu Thr Gln Thr His Gln Gln Val Gly Asn Met Ser Ile Asn
273 85          90          95
274 Tyr Gly Ala Asn Phe Gln Pro Asn Gly Asn Ala Tyr Leu Cys Val Tyr
275 100         105         110
276 Gly Trp Thr Val Asp Pro Leu Val Glu Tyr Tyr Ile Val Asp Ser Trp
277 115         120         125
278 Gly Asn Trp Arg Pro Pro Gly Ala Thr Pro Lys Gly Thr Ile Thr Val
279 130         135         140
280 Asp Gly Gly Thr Tyr Asp Ile Tyr Glu Thr Leu Arg Val Asn Gln Pro
281 145         150         155         160
282 Ser Ile Lys Gly Ile Ala Thr Phe Lys Gln Tyr Trp Ser Val Arg Arg
283 165         170         175
284 Ser Lys Arg Thr Ser Gly Thr Ile Ser Val Ser Asn His Phe Arg Ala
285 180         185         190
286 Trp Glu Asn Leu Gly Met Asn Met Gly Lys Met Tyr Glu Val Ala Leu
287 195         200         205
288 Thr Val Glu Gly Tyr Gln Ser Ser Gly Ser Ala Asn Val Tyr Ser Asn
289 210         215         220
290 Thr Leu Arg Ile Asn Gly Asn Pro Leu Ser Thr Ile Ser Asn Asp Glu
291 225         230         235         240
292 Ser Ile Thr Leu Asp Lys Asn Asn
293      245
295 <210> SEQ ID NO: 7
296 <211> LENGTH: 81
297 <212> TYPE: DNA
298 <213> ORGANISM: Bacillus sp.

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/21/2005
PATENT APPLICATION: US/09/909,207D TIME: 11:13:44

Input Set : A:\GC450-D1-US-SEQLIST.TXT
Output Set: N:\CRF4\09212005\I909207D.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:26; N Pos. 107

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/909,207D

DATE: 09/21/2005

TIME: 11:13:44

Input Set : A:\GC450-D1-US-SEQLIST.TXT
Output Set: N:\CRF4\09212005\I909207D.raw

L:62 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:187 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
L:190 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
L:316 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:382 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:385 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:60